

WE CLAIM:

1. Synchronizer ring, having a ring body (2) which has a sliding region, the sliding region being provided with a wear-resistant tribological coating, characterized in that the tribological coating (4) is a thermally sprayed coating which contains a maximum of approximately 40% by weight of a solid lubricant.

2. Synchronizer ring according to Claim 1, characterized in that the solid lubricant is titanium dioxide ( $\text{TiO}_2$ ), calcium fluoride ( $\text{CaF}_2$ ), hexagonal boron nitride (h-BN), graphite, lead (Pb) or molybdenum sulphide ( $\text{MoS}_2$ ) or any desired mixture of these substances.

3. Synchronizer ring according to Claim 1, characterized in that the solid lubricant has a particle size of up to approximately 200  $\mu\text{m}$  and preferably of between 50  $\mu\text{m}$  and 180  $\mu\text{m}$ .

4. Synchronizer ring according to one of the preceding claims, characterized in that the thermally sprayed coating (4) furthermore contains tin and/or zinc and/or silicon and/or nickel and/or manganese and/or copper and/or aluminium and/or one or more of their oxides and/or one or more of their carbides and/or one or more of their nitrides and/or carbon.

5. Synchronizer ring according to one of the preceding claims, characterized in that the thermally sprayed coating has a porosity of up to approximately 30%.

6. Process for applying a wear-resistant tribological coating to the sliding region of a synchronizer ring, characterized in that the coating (4) is thermally sprayed, a spraying compound

which contains at most approximately 40% by weight of a solid lubricant being used.

7. Process according to Claim 6, characterized in that the solid lubricant used is titanium dioxide ( $\text{TiO}_2$ ), calcium fluoride ( $\text{CaF}_2$ ), hexagonal boron nitride (h-BN), graphite, lead (Pb) or molybdenum sulphide ( $\text{MoS}_2$ ) or any desired mixture of these solid lubricants.

8. Process according to Claim 6, characterized in that a spraying compound is used which furthermore contains tin and/or zinc and/or silicon and/or nickel and/or manganese and/or copper and/or aluminium and/or one or more of their oxides and/or one or more of their carbides and/or one or more of their nitrides and/or carbon.

9. Process according to Claim 6, characterized in that the coating is applied in a wire arc spraying process and/or a flame spraying process.

10. Process according to Claim 9, characterized in that the spraying compound used is a filled wire which has a filling which contains a solid lubricant and, if appropriate, tin and/or zinc and/or silicon and/or nickel and/or manganese and/or copper and/or aluminium and/or one or more of their oxides and/or one or more of their carbides and/or one or more of their nitrides and/or carbon.

11. Process according to Claim 10, characterized in that a filled wire with a covering of copper and/or tin and/or zinc and/or aluminium and/or their alloys is used.

12. Process according to one of the preceding claims, characterized in that, in addition to a filled wire, a solid wire, preferably made from CuAl8, is used as the spraying compound.

13. Process according to one of Claims 6 to 12, characterized in that the sliding region (3), prior to the application of the coating (4), is roughened, preferably sand-blasted and degreased.

14. Process according to one of Claims 6 to 13, characterized in that the coating (4) is stamped after it has been applied.